

Remarks and Arguments

Claims 1-11 and 44-54 were presented for examination. Claims 1 and 44 have been amended.

Claims 1-11 and 44-54 have been rejected under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,195,703 (Blumenau) in view of U.S. Patent No. 6,157,927 (Schaefer, previously cited.)

The Blumenau reference discloses a storage system in which hosts that request access to storage resources can be connected through a switch to network ports of a cached storage sub-system. The switch allows alternative paths to be selected between a particular host and the storage sub-system. However, although different paths can be selected between a host and a particular storage device, there is no teaching or suggestion in Blumenau that a request to store data could be routed to different storage devices. For example, Blumenau, column 4, lines 43-53, discloses:

“If the data to be accessed resides in the cache memory, then the port adapter accesses the data in the cache memory. If the data to be accessed does not reside in the cache memory, then the port adapter forwards a storage access request to the storage adapters 37, 38. One of the storage adapters 37, 38 responds to the storage access request by performing a logical-to-physical translation to determine where the data to be accessed resides on the storage devices, and reads the data from the storage devices and writes the data to the cache memory, for access by the port adapter.” (emphasis added)

This clearly indicates that the physical storage location depends on the address.

The Blumenau reference has been combined with the Schaefer reference that was been previously cited. As noted in the response to the previous office action filed on April 21, 2008, nothing in Schaefer indicates that the system uses anything other than conventional database transaction processing in which information is retrieved from, and stored back into, the same physical device location. Specifically, the physical storage location is determined by the address and not by the workload of the storage resources.

Therefore, neither of the cited references discloses a system in which data corresponding to the same data identifier or address may be stored in different physical

storage device locations based on criteria, such as load balancing or availability and, consequently, the combination of these references cannot teach or suggest this type of operation. The claims have been amended to particularly point out the differences between the present system and the cited references. For example, claim 1 now recites, in lines 5-10, "... in response to each service request and based on a workload instead of a physical location in the plurality of devices, dynamically selects a subset of the plurality of storage devices in which the data is stored so that the physical storage device location to which data corresponding to the same data identifier is transferred can change from request to request..." As discussed above, in both the Blumenau and Schaefer systems, the resources to which data is transferred are selected by address not by workload as claimed. Thus, the combination of Blumenau and Schaefer references proposed by the examiner cannot teach or suggest the structure recited in claim 1 because neither references teaches this structure. Therefore, claim 1 patentably distinguishes over the cited reference combination.

Claims 2-11 are dependent, either directly or indirectly, on amended claim 1 and incorporate the limitations thereof. Therefore, they also distinguish over the cited reference combination in the same manner as amended claim 1.

Method claim 44 contains limitations that parallel those in apparatus claim 1 and has been amended in a manner that parallels that of claim 1. Thus, amended claim 44 patentably distinguishes over the cited reference combination in the same manner as claim 1. Claims 45-54 are dependent, either directly or indirectly, on amended claim 44 and incorporate the limitations thereof. Therefore, they also distinguish over the cited reference combination in the same manner as amended claim 44.

In light of the forgoing amendments and remarks, this application is now believed in condition for allowance and a notice of allowance is earnestly solicited. If the examiner has any further questions regarding this amendment, he is invited to call

applicants' attorney at the number listed below. The examiner is hereby authorized to charge any fees or direct any payment under 37 C.F.R. §§1.17, 1.16 to Deposit Account number 50-3969.

Respectfully submitted

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